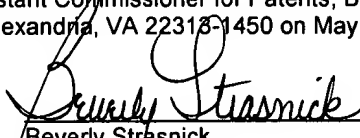


AF/1732  
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<b>APPELLANT'S REPLY TO EXAMINER'S ANSWER</b> <b>37 CFR §1.192</b>		Docket No. M1025/7001
Applicant:	Stern et al.	
Serial No:	09/578,236	
Filed:	May 24, 2000	
For:	Method For Producing A Plastic Film Having Improved Characteristics, Apparatus For Performing the Method, and Film Thus Obtained	
Examiner:	Geoffrey Shipsides	
Art Unit:	1732	

**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Assistant Commissioner for Patents, Board of Patent Appeals and Interferences, P.O. Box 1450, Alexandria, VA 22313-1450 on May 24, 2004.

  
Beverly Strasnick

Assistant Commissioner for Patents  
Board of Patent Appeals and Interferences  
P.O. Box 1450  
Alexandria, VA 22313-1450

This Reply Brief is in furtherance of the Notice of Appeal previously filed.

This Reply Brief is transmitted in triplicate.

**I. REPLY ARGUMENT (37 C.F.R. 1.192(c)(8))**

**Contrary to the Examiner's assertion, the cited Krech reference does not teach the method claim elements of forming, distributing, cooling and modifying**

Claim 1 is the sole independent claim in this application and on appeal. This claim calls for (a) forming the plastic film by extrusion from an extruder nozzle, (b) distributing at least one active substance on at least one face of the film ..... such that the active substances penetrate into and are retained within the film to form a single body of film, (c) cooling the film ..... wherein the one or more substances are permanently incorporated in the body of the film in the solidified state to (d) modify selected characteristics of the film.

The Krech reference does not teach or suggest these elements of the claims alone or in combination with the Siol reference.

Applicants respectfully disagree with the examiner's interpretation of the Krech reference and the Examiner's interpretation of the claim language.

The claim language does not encompass using an inactive substance that does not modify the film such as in Krech.

Krech does 'not' teach incorporating an active substance to modify the mechanical or chemical characteristics of the film. Krech explicitly teaches that Krech's film must already have characteristics adapted for the intended use, i.e. mechanical resistance for use as an abrasive. In other words, the solid particles of Krech (chemically inactive hard abrasive particles) constitute a real layer that is superimposed on the film while the active substance of the claimed invention modifies the mechanical and/or chemical characteristics of the film itself rather than growing an added layer on the film.

To the extent the examiner's argument states that an inactive substance is disclosed in the application or that an inactive substance is intended to be encompassed by claim 1, Applicants respectfully disagree. Claim 1 is explicit in calling for an 'active' substance that 'modifies' the characteristics of the film itself. Any inactive substance that does not modify the characteristics of the film is not encompassed by claim 1.

#### **The Examiner's argument ignores the real teaching of the Siol reference**

Siol's disclosure is a synthetic polymerization and coating method, 'not' a film modification method.

Siol's deposited comonomers are 'not' an active substance

Siol (U.S. 4,184,207) deposits unpolymerized co-monomers on the surface of an extruded film. This method, regardless of when during the extrusion process takes place does not mechanically or chemically modify the extruded film and does not penetrate the film regardless of when it is applied during the extrusion process.

The citation by the examiner to a single phrase in the Siol disclosure to the 'possibility' of deposition of Siol's comonomers on a film above its glass transition temperature, does not achieve modification of the mechanical or chemical properties of the film. It cannot because if the comonomers penetrate the film, they will not copolymerize and therefore defeat the purpose of Siol's disclosure.

#### **The examiner's interpretation of the alleged Admissions/Statements in the Specification is erroneous.**

The examiner is misinterpreting and misapplying Applicant's statements in the Background section of the application. Those statements speak for themselves. They are a statement of the prior art which is contrary to the claimed invention.

"Plastic films are currently widely used, particularly for packaging which are used mainly to package food products.....plastic films with improved characteristics are also know in the art .....plastic films with improved adhesion of inks and printing dyes, with 'barrier effect', and with 'smart' packaging capabilities .....production of plastic films having these improved characteristics can be based upon the surface application of substances on plastic films at the time of their use, i.e., long after their production."

### CONCLUSION

For the reasons stated above, it is respectfully requested that the examiner's rejection of claims 1-16 of the present application be reversed and that the present application be allowed for issuance.

Respectfully submitted,



Date: May 24, 2004

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## **IX APPENDIX OF CLAIMS (37 C.F.R. 1.192(c)(9))**

The text of the claims involved in the appeal are:

1. A method for producing a plastic film having improved characteristics, comprising forming the plastic film by extrusion from an extruder nozzle, the film emerging from the nozzle in a melted state, distributing at least one active substance on at least one face of the film, in a region of the film having a temperature higher than the ambient temperature such that the active substances penetrate into and are retained within the film to form a single body of film, cooling the film downstream of the extruder nozzle to a solidified state at ambient temperature wherein the one or more substances are permanently incorporated in the body of the film in the solidified state to modify selected characteristics of the film.
2. The method according to claim 1, wherein said region of the film lies between a point where the film leaves the extruder and a point where the film has a temperature at which dimensional stability thereof is reached.
3. The method according to claim 1, wherein said region of the film lies between a point where the film has a temperature at which dimensional stability thereof is reached and a point where the film has the ambient temperature.
4. The method according to claim 3, wherein a first one of said active substances is suitable to facilitate adhesion of inks or other chemical products on said film.
5. The method according to claim 4, wherein said active substances are selected from the group consisting of:  
silanes;

titanium;  
acetyl acetate;  
polyethylene imine;  
ionomeric dispersions;  
shellac;  
mono- and dicarboxylic acids (acrylic, stearic acid);  
copolyester dispersions;  
dispersions of ethylene-acrylic acid (EAA) or methacrylic acid copolymer;  
UV cross-linking acrylic resins;  
acrylic (styrene-acrylic) dispersions;  
acrylic resins;  
acrylamide;  
styrene-butadiene dispersions;  
polar monomers.

6. The method according to claim 1, wherein said active substance provides said film with a "barrier effect" characteristic against the absorption of aromas, water vapor or UV rays.

7. The method according to claim 6, wherein said active substances are selected from the group consisting of:

dispersions of EVOH or PVOH;  
polyvinyl acetate (PVAC) dispersions;  
dispersions of ethylene-acrylic acid (EAA) or methacrylic acid copolymer;  
UV cross-linking acrylic resins;  
acrylic (styrene acrylic) disperse systems;  
styrene-butadiene dispersions.

8. The method according to claim 1, wherein said active substance gives said film characteristics of high flow and surface slipperiness.
9. The method according to claim 8, wherein said active substance is an amide.
10. The method according to claim 1, wherein said active substances makes said film a crosslinking promoter.
11. The method according to claim 10, wherein said active substance is zinc stearate and/or caprolactam.
12. The method according to claim 1, wherein said active substance comprises a material that reacts when subsequently exposed to a selected treatment.
13. The method according to claim 12, wherein said active substance is an oxidizing salt.
14. The method according to claim 1, wherein identical or different active substances are nebulized on both faces of the film.
15. The method according to claim 1, wherein said active substance is constituted by microcapsules or micropearls which contain substances which are suitable to combine and/or interact with the film and whose shell withstands the temperatures of the region of the film in which they are introduced and can subsequently be activated in order to release the contents due to the application of energy obtained for example with ultraviolet rays, ultrasound or electromagnetic radiation.

16. The method according to claim 1, wherein said substance deposited and/or introduced in the film is a microfiber of glass, carbon and/or equivalent materials, alone or in combination, which are meant to vary the mechanical and/or surface strength characteristics of said film.

**TRANSMITTAL LETTER**

Docket No. M1025/7001

Applicant: Sterner et al.  
Serial No: 09/578,236  
Filed: May 24, 2000  
For: METHOD FOR PRODUCING A PLASTIC FILM HAVING IMPROVED  
CHARACTERISTICS, APPARATUS FOR PERFORMING THE METHOD,  
AND FILM THUS OBTAINED  
Examiner: Geoffrey Shipsides  
Art Unit: 1732

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Enclosures**

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| <input type="checkbox"/> Assignment Papers                                 | <input type="checkbox"/> Copy of Original Filing Receipt      |
| <input type="checkbox"/> Change of Correspondence Address                  | <input type="checkbox"/> Request for Continued Examination    |
| <input type="checkbox"/> Declaration/Power of Attorney                     | <input type="checkbox"/> Request for Reconsideration          |
| <input type="checkbox"/> Extension of Time Request                         | <input type="checkbox"/> Request for Refund                   |
| <input type="checkbox"/> Fee Transmittal Form                              | <input type="checkbox"/> Response to Missing Parts            |
| <input type="checkbox"/> Invention Disclosure Document                     | <input type="checkbox"/> Return Receipt Postcard              |
| <input checked="" type="checkbox"/> Applicant's Reply to Examiner's Answer | <input type="checkbox"/> Sheets Formal Drawing(s)             |
| <input type="checkbox"/> Petition for                                      | <input type="checkbox"/> Status Letter                        |
| <input type="checkbox"/> Power of Attorney Form                            | <input type="checkbox"/> Terminal Disclaimer                  |
| <input type="checkbox"/> Request for Certified Copies                      | <input type="checkbox"/> Other:                               |

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Date: May 24, 2004